



Cover Sheet for Informal Council

Agenda No.

Submitting Department: Water Pollution Control Facilities

Presenter: Patrick Ball **E-Mail:** p.ball@cedar-rapids.org **Phone Number/Extension:** 5282

Description of Agenda Item: Execution of a Professional Services Agreement with Applied Technologies Inc. in an amount not to exceed \$333,800.00 for evaluation and design services for the Anaerobic Biogas System Project (CIP 615140-01)

Background: The anaerobic treatment system at the WPC Facilities produces biogas, which is composed of methane, carbon dioxide, hydrogen sulfide, and other gases. Due to the nature of the wastewater, the Cedar Rapids biogas has a substantial hydrogen sulfide component. The WPCF uses the Paques biological sulfide oxidation system to convert the hydrogen sulfide in the biogas to elemental sulfur. The biogas is used as a fuel for the WPCF's sludge incinerator. Excess gas is flared. Two boilers are being installed which will have the capability to operate on biogas and natural gas.

The anaerobic treatment system has been operating since 2000 and a number of issues have developed with the biogas system. These issues include:

- Lack of system redundancy, which inhibits maintenance of the system.
- Lack of an independent venting system which could result in unsafe venting of the biogas.
- Excessive condensate in the biogas piping.
- Corrosion of specific equipment
- Inadequate biogas flow metering.
- Improvements needed to the existing flares.
- Possible need for biogas storage to better match biogas production and use.

The project goals are to improve the safety, operability and maintainability of the biogas system.

The project work will be conducted in phases. The first phase will be the preliminary design phase, followed by design development, contract document preparation, bidding services, and construction services. Proposals were requested from four engineering firms and two proposals were received. The two proposals were from Applied Technologies and Brown & Caldwell. After evaluation of the proposals, Applied Technologies was selected as the best qualified and they also were the lower cost of the two proposals.

Budget: \$333,800.00 925-521104-615-615000-615140 WPC FY07 CIP budget.

Action/Recommendation:

The Water Pollution Control Facilities recommends approval of resolution authorizing execution of a Professional Services Agreement with Applied Technologies, Inc. for the evaluation and design services for the Anaerobic Biogas System Project.

Resolution Date: 9/20/06

Estimated Presentation Time: 2 Minute(s)

RESOLUTION NO. 1346-09-06

WHEREAS, the Water Pollution Control Facilities needs Professional Design Services for the Anaerobic Biogas System Project (615140-01) at the Water Pollution Control Facilities, and

WHEREAS, Applied Technologies Inc. has specific understanding and knowledge pertaining to our evaluation and design needs for the Anaerobic Biogas System Project and have a quote not to exceed \$333,800.00 for the design services of the aforesaid improvements to the Water Pollution Control Facilities, now therefore

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF CEDAR RAPIDS, IOWA, that the City be authorized to enter into a Design Agreement with Applied Technologies Inc. to provide said work for the Water Pollution Control Facilities, as set out in the Scope of Services, for a maximum not to exceed fee of \$333,800.00 and that the Mayor and City Clerk be hereby authorized to sign such an Agreement. Cost shall be coded as follows:
925-521104-615-615000-615140.

Passed this 20th day of September, 2006.

Voting: Council member Henderson moved the adoption of the resolution; seconded by Council member McGrane. Adopted, Yeas, Council members Fagan, Gulick, Henderson, McGrane, Podzimek, Shey, Shields, Swore and Mayor Halloran.

Kay Halloran, Mayor

Attest:

Ann O'Leary, City Clerk

**Council Agenda Item Cover Sheet****Submitting Department:** Utilities-WPC**Date of Council Meeting:** 5/13/09**Presenter at meeting:** Bruce Jacobs**Phone Number/Extension:** 5913**E-mail Address:** b.jacobs@cedar-rapids.org**Alternate Contact Person:** Pat Ball**Phone Number/Extension:** 5282**E-mail Address:** p.ball@cedar-rapids.org

Description of Agenda Item: Discussion of bids and recommended action to award a contract for the Water Pollution Control Facilities Biogas Handling System Improvements project. (Contract No. 615140-03).

Background: Biogas is produced from the anaerobic reactors. Biogas is flammable, hazardous and corrosive. Biogas is used to supplement the natural gas used in the incinerator. The facility saves approximately one million dollars a year in natural gas costs. This project adds more safety and redundancy to the biogas handling system. The major additions are a secondary pipeline from the top of the anaerobic reactors to a new flare building. This new pipeline, along with the existing pipeline, will create two ways for the biogas to be safely flared off. **(Not Flood Related).**

Five bids were received on May 7, 2009, for the Water Pollution Control Facilities Biogas Handling System Improvements.

Miron Construction	Cedar Rapids, IA	\$ 2,699,600
Story Construction Company	Ames, IA	\$ 2,850,000
WRH, Inc. (a/k/a Wendler)	South Amana, IA	\$ 2,977,000
Tricon Construction	Dubuque, IA	\$ 3,188,000
Unzeitig Construction	Cedar Rapids, IA	\$ 3,212,000

The engineer's opinion of probable cost for the construction of this project was \$2,285,000. The lowest bid was \$2,699,600. The difference between the engineer's opinion and the low bid is principally a result of improvements in the design included in the addendum. A higher quality of valve was specified throughout the project, and additional stainless steel structural members were determined to be needed in lieu of carbon steel members, among other enhancements. Also the allowance for change orders included in the contract was overlooked by the engineer in the preparation of their opinion of probable cause.

A motion to publish a Notice of Hearing and Letting was approved by the City Council on April 8, 2009. The public hearing was held April 22, 2009. The work is anticipated to begin in summer of 2009 and be completed in the summer of 2010.

Action / Recommendation: The Cedar Rapids Utility Department – Water Pollution Control Division recommends approval of a resolution awarding contract 615140-03 to Miron Construction in the amount of \$2,699,600.00.

Alternative Recommendation (if applicable): None.

Time Sensitivity: Action needed May 13, 2009.

Resolution Date: 05-13-2009.

Estimated Presentation Time: Two Minutes.

Budget and Purchase Process Information:

1. **Included in Current Budget Year:** The project will be funded from the FY09 and FY10 Utilities Department - WPC CIP budget and coded to 912-553000-615-615000-615140.
2. **Analysis if the expenditure is within budgeted expectations, i.e. some type of budget to actual comparison:** The amended FY09 budget and the FY10 CIP budget include a total of \$2,875,000 for the Biogas Handling System Improvements under CIP number 615140.
3. **Purchasing Department used or Purchasing Guidelines followed:** Yes, the project was bid as a public improvement project.

RESOLUTION NO. 0468-05-09

ACCEPTING PROPOSAL, AWARDING CONTRACT, APPROVING CONTRACT

WHEREAS, on April 8, 2009 the City Council adopted a motion that directed the City Clerk to give notice to bidders and publish notice of a public hearing on the plans, specifications, form of contract and cost estimate for the Cedar Rapids Water Pollution Control Facilities Biogas Handling Systems Improvements (Contract No. 615140-03) public improvement project for the City of Cedar Rapids, Iowa, and

WHEREAS, said notice was published in the Cedar Rapids Gazette on April 11, 2009 pursuant to which a public hearing was held on April 22, 2009, and

WHEREAS, the following bids were received, opened and announced on May 7, 2009 by the Utilities Director, or designee, and said officer has now reported the results of the bidding and made recommendations thereon to the City Council at its next meeting on May 13, 2009:

	<u>Base Bid</u>	<u>Allowance</u>	<u>Total Lump Sum Bid plus Allowance</u>
Miron Construction Co., Inc.	\$2,599,600.00	\$100,000.00	\$2,699,600.00
Story Construction Company	\$2,750,000.00	\$100,000.00	\$2,850,000.00
WRH, Inc. (a/k/a Wendler)	\$2,877,000.00	\$100,000.00	\$2,977,000.00
Tricon Construction	\$3,088,000.00	\$100,000.00	\$3,188,000.00
Unzeitig Construction	\$3,112,000.00	\$100,000.00	\$3,212,000.00

AND WHEREAS, the general ledger coding for this public improvement project shall be as follows: \$2,699,600.00, 912-553000-615-615000-615140, and

NOW THEREFORE BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF CEDAR RAPIDS, IOWA as follows:

1. The previous delegation to the Utilities Director, or his designee, to receive, open and publicly announce the bids, and report the results thereof to the City Council at its next meeting is hereby ratified and approved;

2. Miron Construction Co., Inc. is the lowest responsive, responsible bidder on said work and the Utilities Director, or his designee, has recommended that the City accept its Base Bid plus Allowance and award the contract to it;

3. Subject to registration with the Department of Labor, the Bid of Miron Construction Co., Inc. is hereby accepted, and the contract for this public improvement is hereby awarded to Miron Construction Co., Inc.;

4. The City Manager and City Clerk are hereby directed to sign and execute a contract with said contractor for the construction of the above-described public improvements;

BE IT FURTHER RESOLVED that the bid securities of the unsuccessful bidders be returned to them by the City Clerk, and

BE IT FURTHER RESOLVED that upon execution by the City Manager and City Clerk, said contract is approved, subject to approval of the bond and insurance by the City of Cedar Rapids Risk Manager and filing of the same with the City of Cedar Rapids Finance Director.

Passed this 13th day of May, 2009.

Voting: Council member Gulick moved the adoption of the resolution; seconded by Council member McGrane. Adopted, Ayes, Council members Fagan, Gulick, McGrane, Podzimek, Shey, Wieneke and Mayor Halloran. Nay, Council member Shields.

Attest:

Kay Halloran, Mayor

Ann Ollinger, City Clerk



DRAFT Cover Sheet for City Council

Submitting Department: Utilities-WPC

Presenter at meeting: Pat Ball

Phone Number/Extension: 5282

E-mail Address: p.ball@cedar-rapids.org

Alternate Contact Person: Bruce Jacobs

Phone Number/Extension: 5913

E-mail Address: b.jacobs@cedar-rapids.org

Description of Agenda Item: Resolution to authorizing the City Manager to execute Amendment No. 1 to the Professional Service Agreement with Applied Technologies, Inc. for the Water Pollution Control (WPC) Anaerobic Biogas Project (CIP No 615140-01), dated September 20, 2006. This amendment would add \$46,800 to this Project. This amendment will cover additional work do to a delay (June 2008 flood), extensive questions and change requests from City Staff and Bidders during the Bid phase, and two small engineering modifications to the blower building. The total cost of the Agreement with Amendment No. 1 is \$380,600.

Background: Biogas is produced from the anaerobic reactors. Biogas is flammable, hazardous, and corrosive. Biogas is used to supplement the natural gas used in the incinerator. The facility saves approximately one million dollars a year in natural gas and other plant operating costs. This Project adds more safety and redundancy to the biogas handling system. The major addition is a secondary pipeline from the top of the anaerobic reactors to a new flare building. This new pipeline, along with the existing pipeline, will create two ways for the biogas to be safely flared off when the incinerator is out of service.

Action / Recommendation: The Cedar Rapids Utility Department – Water Pollution Control Division recommends that Amendment No. 1 to the Agreement with Applied Technologies for the WPC Anaerobic Biogas Project be approved and the City Manager be authorized to execute said Amendment.

Alternative Recommendation (if applicable): None.

Time Sensitivity: Action requested August 12, 2009.

Resolution Date: 08-12-2009.

Estimated Presentation Time: Two Minutes.

Budget and Purchase Process Information:

1. **Included in Current Budget Year:** The project will be funded from the FY10 Utilities Department CIP budget and coded to 912-553000-615-615000-615140.
2. **Analysis if the expenditure is within budgeted expectations, i.e. some type of budget to actual comparison:** The amended FY09 and the FY10 CIP budgets combined include a total of \$2,875,000 for the Biogas Handling System Improvements under CIP number 615140.
3. **Purchasing Department used or Purchasing Guidelines followed:** Several engineering firms were evaluated for this Project and Applied Technologies, Inc. was chosen.